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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,440	01/14/2005	David Roberts McMurtry	122204	1862

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OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
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GUADALUPE, YARITZA

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/521,440

Applicant(s)

MCMURTRY ET AL.

Examiner

Yaritza Guadalupe McCall

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 20-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 20-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/14/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - a. Page 2 of the specification makes reference to the phrase “claim 1” in line 25.  
This phrase should be removed from the specification in order to avoid confusions.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 20 – 22, 27 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites “ cooperating means located on the machine part ” which fails to further limit the language in claim 2, since claim 2 already recites a similar limitation.

Claim 30 recites a method wherein “ the machine part has a region of increased diameter and the method includes ” thus resulting in a vague and indefinite limitation.

Claims 21 – 22 and 27 are rejected due to their dependency on claim 20.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 20 – 21, 23 – 26 and 28 - 29 are rejected under 35 U.S.C. 102 (b) as being anticipated by Henshaw et al. ( US 6,481,115 ).

In regards to claim 1, Henshaw et al. discloses a rotary ring ( 3 ) for use in a scale reading apparatus comprising a flexible ring (3 ), the flexible ring having scale markings provided on a surface thereof ( See Column 2, lines 7 – 12 ).

With respect to claim 2, Henshaw et al. also discloses a system for mounting a rotary ring ( 3 ) for use in scale reading apparatus onto a machine part ( 6, 7 ), comprising a rotary ring ( 3 ) and co-operating means ( 8 ) on said machine part (7), said co-operating means comprising a region of increased diameter ( tapered region ).

Regarding claim 20, Henshaw et al. further discloses a system wherein the cooperating means is located on the machine part.

With regards to claim 21, Henshaw et al. also shows a system wherein the region of increased diameter (tapered region ) is integral with the machine part ( 6, 7 ) as shown in figures 3 and 4.

Regarding claim 23, Henshaw et al. also discloses a system wherein the region of increased diameter comprises an annular protrusion ( 7 ).

In regards to claim 24, Henshaw et al. teaches a system wherein the region of increased diameter comprises a tapered surface ( See Figures 3 and 4 ).

With respect to claim 25, Henshaw et al. discloses a system wherein the flexible rotary ring is provided with a tapered surface.

Regarding claim 26, Henshaw et al. also discloses a system wherein at least one of the region of increased diameter and the rotary ring ( 3 ) is provided with a tapered surface and form a self locking taper.

In regards to claim 28, Henshaw et al. further discloses a system wherein the region of increased diameter is shaped so that once the flexible rotary ring ( 3 ) is fitted over said region of increased diameter, the central region of said rotary ring is substantially parallel with the axis of said machine part ( See Figures 3 and 4 ).

Regarding claim 29, Henshaw et al. also teaches the method of mounting a flexible rotary scale ( 3 ) onto a part of a machine ( 6, 7 ), the method comprising the step of stretching or shrinking the flexible rotary scale onto the part.

6. Claims 1 – 2, 20, 22 and 27 are rejected under 35 U.S.C. 102 ( e ) as being anticipated by Peterlechner et al. ( US 6,612,048 ).

In regards to claim 1, Peterlechner et al. discloses a rotary ring ( 1 ) for use in a scale reading apparatus comprising a flexible ring ( 1 ), the flexible ring having scale markings provided on a surface ( 6 ) thereof.

With respect to claim 2, Peterlechner et al. also discloses a system for mounting a rotary ring ( 1 ) for use in scale reading apparatus onto a machine part (6), comprising a rotary ring ( 1 ) and co-operating means ( 2, 3 ) on said machine part ( 7 ), said co-operating means comprising a region of increased diameter (layers 2 and 3 ).

Regarding claim 20, Peterlechner et al. further discloses a system wherein the cooperating means is located on the machine part ( 6 ).

Regarding claim 22, Peterlechner et al. also discloses a system wherein the region of increased diameter is not integral with the machine part.

Regarding claim 27, Peterlechner et al. further teaches a system wherein the region of increased diameter comprises a ring-shaped flexible member ( 2, 3 ).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Henshaw et al. ( US 6,481,115 ).

Regarding claim 22, Henshaw et al. also discloses a system wherein the region of increased diameter is integral with the machine part. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the region of increased diameter being not integral to the machine part, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together or vice versa involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 ( 1893 ).

9. Claims 29 – 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henshaw et al. ( US 6,481,115 ) in view of Hertenberger et al. (US 2004/0211072 ).

Henshaw et al. discloses a rotary ring and a system for mounting a rotary ring as stated in paragraph 5 above.

Henshaw et al. does not discloses the stretching or shrinking method as stated in claim 29.



With respect to claim 29 : Henshaw et al. discloses a system comprising a rotary ring ( 3 ) mounted to a machine part ( 6 ) by applying a layer of adhesive between the ring and the machine part ( See Column 2, lines 14 – 19 ). Hertenberger et al. discloses a method of mounting a flexible rotary scale ( 3 ) onto a part of a machine ( 1 ), the method comprising the step of fastening the scale ( 3 ) to the machine part ( 10 ) by applying an adhesive ( See paragraph [0052] ), however, an alternative embodiment is disclosed where the step of fastening said scale ( 3 ) to the machine part ( 1 ) is made by stretching or shrinking the flexible rotary scale onto the part ( See paragraphs [0067 – 0068] ). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the fastening process used by Henshaw et al. with a stretching and shrinking process as taught by Hertenberger et al. in order to enhance the securing of the ring and since these are well known fastening processes that are used alternatively to securely hold a structure to a surface.

In regards to claim 30, the combination of Henshaw et al. and Hertenberger et al. teaches a method of mounting a flexible rotary scale ( 3 ) onto a machine part ( 6 ) wherein the part has a region of increased diameter ( See tapered portion of Henshaw et al. ).

Regarding claim 31, the combination of Henshaw et al. and Hertenberger et al. also disclose a method of mounting a flexible rotary scale onto a part of a machine wherein the region of increased diameter is integral with the part of the machine.

With regards to claim 32, the combination of Henshaw et al. and Hertenberger et al. shows a method of mounting a flexible rotary scale ( 3 ) onto a part of a machine wherein the region of increased diameter is integral with the part of the machine. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the region of increased diameter being not integral to the machine part, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together or vice versa involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 ( 1893 ).

Regarding claim 33, the combination of Henshaw et al. and Hertenberger et al. also teach a method of mounting a flexible rotary scale onto a part of a machine wherein the region of increased diameter comprises an annular protrusion.

With respect to claim 34, the combination of Henshaw et al. and Hertenberger et al. disclose a method of mounting a flexible rotary scale onto a part of a machine wherein the region of increased diameters comprises a tapered surface.

In regards to claim 35, the combination of Henshaw et al. and Hertenberger et al. further teach a method of mounting a flexible rotary scale onto a part of a machine wherein the flexible rotary scale is also provided with a tapered surface.

Regarding claim 36, the combination of Henshaw et al. and Hertenberger et al. discloses a method of mounting a flexible rotary scale onto a part of a machine wherein at least one of the region of increased diameter and the flexible rotary scale are provided with a tapered surface and form a self locking taper.

With regards to claim 38, the combination of Henshaw et al. and Hertenberger et al. also disclose a method of mounting a flexible rotary scale onto a part of a machine wherein the region of increased diameter is shaped so that once the flexible rotary scale is fitted over said region of increased diameter, the central region of said flexible rotary scale is substantially parallel with the axis of said part.

10. Claims 29, 32 and 37 are rejected under 35 U.S.C. 103 ( a ) as being unpatentable over Peterlechner et al. ( US 6,612,048 ) in view of Hertenberger et al. ( US 2004/0211072 ).

Peterlechner et al. discloses a rotary ring and a system for mounting a rotary ring as stated in paragraph 6 above.

Peterlechner et al. does not discloses the stretching or shrinking method as stated in claim 29.

With respect to claim 29 : Peterlechner et al. discloses a system comprising a rotary ring (1) mounted to a machine part ( 6 ) by using adjusting screws ( 8, 9 ). Hertenberger et al. discloses a method of mounting a flexible rotary scale ( 3 ) onto a part of a machine ( 1 ), the method comprising the step of fastening the scale ( 3 ) to the machine part ( 10 ) by applying an adhesive ( See paragraph [0052] ), however, an alternative embodiment is disclosed where the step of fastening said scale ( 3 ) to the machine part ( 1 ) is made by stretching or shrinking the flexible rotary scale onto the part ( See paragraphs [0067 – 0068] ). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the fastening process used by Peterlechner et al. with a stretching and shrinking process as taught by Hertenberger et al. in order to enhance the securing of the ring and since these are well known fastening processes that are used alternatively to securely hold a structure to a surface.

With regards to claim 32, the combination of Peterlechner et al. and Hertenberger et al. shows a method of mounting a flexible rotary scale ( 3 ) onto a part of a machine wherein the region of increased diameter is integral with the part of the machine.

With regards to claim 37, the combination of Peterlechner et al. and Hertenberger et al. disclose a method of mounting a flexible rotary scale onto a part of a machine wherein the region of increased diameter comprises a ring-shaped member.

***Conclusion***

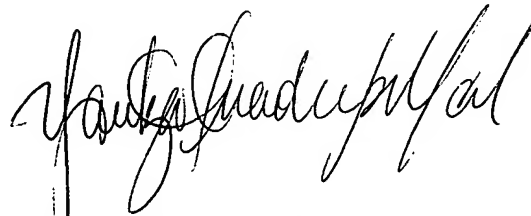
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are considered of relevance to the present application.

- a. Spark et al. ( US 6,775,921 )
- b. Boege et al. ( US 5,979,238 )
- c. Feichtinger ( US 6,637,118 )

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe McCall whose telephone number is (571)272-2244. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Yaritza Guadalupe-McCall', is positioned above the printed name.

YGM  
September 28, 2005

Yaritza Guadalupe-McCall  
Patent Examiner  
Art Unit 2859